



Event Driven Foundations

EDU-EDA-101



The essential training to designing and developing solutions for event driven architectures.

Course Overview

This course provides architects and developers with the fundamental knowledge and skills to become event driven. You will learn the basic concepts of event-driven architectures, the event driven methodolog, and how to apply them to your application architectures and solutions.

Course Objectives

A combination of lecture content and lab work helps attendees to achieve the following:

- Understand the motivations and business values of being event driven
- Understand the concepts of event driven architectures and event mesh
- Get introduced to the event driven methodology and learn how to apply the methodology to your own use case
- Understand the various event driven design patterns for being distributed, being scalable, data handling, and event driven microservices
- Learn how to use the methodology to identify real-time candidate applications using a real-world sample use case
- Learn the principles of good topic taxonomy and topic best practices
- Learn how to identify event flows, events, schemas, and microservices for the sample use case
- Learn how to model events and microservices in PubSub+ Event Portal
- Developers will further learn how to build an Event Mesh for the sample use case

Certifications

- Solace Certified Event Driven Practitioner
- Verifiable Digital Badges

Delivery Method

Instructor-led private on-site or virtual classroom

Course Duration

One day of training

Target Audience

This course is designed for architects, solution architects, and developers.

Prerequisites

Prior knowledge in API, SOA, ESB Integration architectures is recommended

Contact

If you have any questions, contact your account executive or email services@solace.com.

COURSE MODULES

Introduction

Motivations for Being Event Driven

- What is Event Driven?
- Event Driven Architectures (EDA)
- Event Driven Use Cases

EDA Methodology

- Distributed Computing Primer
- The Event Driven 6+1 Step Methodology

EDA Design Patterns Walkthroughs

Distributed Computing

- Retry Pattern
- Idempotent Processor Pattern
- Publish-Subscribe Pattern
- Deferred Execution Pattern

Being Scalable

- Asynchronous Request-Reply Pattern
- Queue-Based Load Levelling Pattern
- Competing Consumer Pattern

Data Handling

- Eventual Consistency Pattern
- Sharding Pattern
- Command & Query Responsibility Segregation Pattern

Event Driven Microservices

- Choreography vs Orchestrations
- Saga Pattern
- RESTful Async Microservices

EDA Methodology in Practice

Real-Time Candidates

- Use Case Identification
- Exploring a Sample Real-World Use Case
- Selecting Candidate Applications

Event Streaming Foundations

- How to Identify Events & Microservices
- Exercise: Modeling Microservices In PubSub+ Event Portal
- Topics & Taxonomy Overview
- Topic Best Practices
- Exercise: Topic Taxonomy for Sample Use Case
- Event Mesh

Hands-On with Event Mesh (for Developers only)

- Exercise: Building an Event Mesh

